

## ASSIGNMENT 2

Textbook Assignment: "Radar Systems Equipment Configurations," chapter 2, pages 2-3 through 2-24.

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- 2-1. Use of BIT circuitry in the AN/SPS-67(V) radar will have which of the following results?
1. It will degrade the performance of the system
  2. It will locate 95% of failures within the receiver-transmitter only
  3. It will locate 95% of failures within the receiver-transmitter and video processor to six possible modules
  4. It will locate 95% of failures to four possible modules within the receiver-transmitter and video processor
- 2-2. What Navy Enlisted Classification code, if any, applies to the AN/SPS-64(V)9 radar?
1. NEC ET-1507
  2. NEC ET-1510
  3. NEC ET-1524
  4. None
- 2-3. Which of the following information/support is available for the AN/SPS-64(V)9 technician?
1. 2M Electronic Repair Program support
  2. Formal maintenance training
  3. Technical Repair Standards
  4. Support and Test Equipment Engineering Program (STEEP)
- 2-4. A radar video converter (RVC) modification of the AN/SPS-55 was developed for which class of ship?
1. DD-963
  2. FFG-7
  3. FFG-61
  4. MCM-1
- 2-5. Which of the following missions is NOT supported by the AN/SPS-55 radar?
1. ASW
  2. AAN
  3. SPW
  4. MOB
- 2-6. The AN/SPS-55 radar, without any modifications, will interface with which of the following systems?
1. MK XII IFF
  2. AN/SLA-10
  3. AN/SYS-2(V)2
  4. AN/SYS-1
- 2-7. An operating AN/SPS-55 radar goes into standby mode and an indicator is activated at the RSC. What is the probable cause?
1. The magnetron has exceeded safe operating parameters
  2. The modulator has exceeded safe operating parameters
  3. A low-voltage condition has occurred
  4. The high-voltage power supply has exceeded safe operating parameters
- 2-8. What is the primary function of an AN/SPS-49(V) radar?
1. Support of AAW
  2. Backup to the weapon system designation radar
  3. Surface search
  4. Navigation

- 2-9. Which of the following functions is/are collateral to the AN/SPS-49(V) radar's primary function?
1. ATC
  2. AIC
  3. ASAC
  4. All of the above
- 2-10. You are on an AEGIS cruiser and your 2D air search radar has been modified to have a direct digital interface with the AEGIS combat system. What is the nomenclature of your radar after the modification is complete?
1. AN/SPS-67(V)3
  2. AN/SPS-49(V)8
  3. AN/SPS-49(v)5
  4. AN/SPS-40E
- 2-11. The AN/SPS-49(V) radar has how many variant configurations?
1. 5
  2. 7
  3. 8
  4. 9
- 2-12. If the AN/SPS-49(V) radar on your ship has ATD and no cooling system, which variant configuration is installed?
1. (V)5
  2. (V)6
  3. (V)7
  4. (V)8
- 2-13. Which of the following variant configurations of the AN/SPS-49(V) radar interface(s) with the AN/SYS-2(V) IADT system?
1. (V)7
  2. (V)8
  3. (V)9
  4. All of the above
- 2-14. Which of the following Navy Enlisted Classification codes applies to the AN/SPS-49(V)1, (V)2, (V)3, (V)4, and (V)6 radars?
1. 1503
  2. 1510
  3. 1511
  4. 1516
- 2-15. The AN/SPS-40B/C/D/E radar operates at what antenna rate for (a) high data rate capabilities and (b) long-range mode?
1. (a) 15 rpm (b) 6.7 rpm
  2. (a) 15 rpm (b) 7.5 rpm
  3. (a) 16 rpm (b) 7.5 rpm
  4. (a) 19 rpm (b) 6.7 rpm
- 2-16. The OMTI field change of the AN/SPS-40B/C/D radar accomplished which of the following results?
1. Replaced the duplexer with a solid state unit
  2. Allowed interface with the AN/SYS-1
  3. Changed the nomenclature of the radar to AN/SPS-40E
  4. Eliminated unit 23
- 2-17. The AN/SPS-40 nomenclature is changed to RN/SPS-40E after completion of which of the following field changes, if any?
1. DMTI
  2. SSTX
  3. RVC
  4. None of the above
- 2-18. What Navy Enlisted Classification code applies to the AN/SPS-40B/C/D radar with field change 11?
1. 1508
  2. 1510
  3. 1511
  4. 1516

- 2-19. How often will antenna and pedestal restoration be performed on the AN/SPS-40B/C/D/E radar?
1. About every 3 years
  2. About every 5 years
  3. Every 7 years
  4. Every 10-15 years
- 2-20. The AN/GPN-27 radar antenna group provides constant radiation altitude coverage of how many degrees above the peak of the beam?
1. 15 degrees
  2. 30 degrees
  3. 45 degrees
  4. 60 degrees
- 2-21. In the AN/GPN-27, which of the following video signals are provided to the processor unit by the receiver?
1. Normal video
  2. Log video
  3. Moving target indicator video
  4. fill of the above
- 2-22. Which of the intercommunication system stations are located in the transmitter building group of the AN/GPN-27 radar?
1. One master station only
  2. One slave station only
  3. One master station and one slave station
  4. Two master stations and one slave station
- 2-23. Where is the 16-inch maintenance ppi for the AN/GPN-27 located?
1. Display site
  2. Transmitter building
  3. Antenna site
  4. Air traffic control room
- 2-24. The operator of which type of radar is able to control the antenna when searching in a target sector?
1. Surface search
  2. 2D air search
  3. 3D air search
  4. Ground-controlled approach
- 2-25. Which of the following statements describes the radiated frequency of a 3D air search radar during electronic scanning?
1. It changes in discrete steps at each elevation angle
  2. It remains constant at each elevation angle
  3. It changes beam width
  4. It changes randomly
- 2-26. Which of the following radars is a Precision Approach Landing System (PALS)?
1. AN/SPN-42A
  2. AN/SPN-46(V)
  3. AN/GPN-27
  4. AN/FPN-63
- 2-27. Which of the following systems is installed at naval air stations for PALS training of flight crews, operators, and maintenance personnel
1. AN/SPN-42T1/3/4
  2. AN/SPN-46(V)1
  3. AN/SPN-46(V)2
  4. AN/FPN-63
- 2-28. How many aircraft can the AN/SPN-46(V) control simultaneously and automatically during the final approach and landing phase of carrier recovery operations?
1. 5
  2. 2
  3. 3
  4. 4

- 2-29. In which mode(s) of operation does the AN/SPN-46(V) transmit command and error signals via Link 4A for automatic control?
1. Mode I
  2. Mode II
  3. Both 1 and 2 above
  4. Mode III
- 2-30. In which mode(s) of operation does the AN/SPN-46(V) provide manual control of the aircraft?
1. Mode I
  2. Mode II
  3. Mode III
  4. Both 2 and 3 above
- 2-31. During Mode II operation of the AN/SPN-46(V), the pilot receives command and error information via what medium?
1. Link 4A and autopilot
  2. Voice communications
  3. Cockpit display
  4. Operator control console
- 2-32. Which of the 26 units in the AN/SPN-46(V)1 is/are not used by the AN/SPN-46(V)2?
1. PRI-FLI indicators (units 6 and 7)
  2. Recorder-converter (unit 8)
  3. LSO waveoff light (unit 10)
  4. MK 16 stable elements (units 17 and 18)
- 2-33. Which unit of the AN/SPN-46(V) automatically switches the AN/TPX-42(V)8 into a master computer configuration of the CCS?
1. Central computer group (unit 12)
  2. Digital data switchboard (unit 14)
  3. Computer processor (unit 19)
  4. Power distribution panel (unit 3)
- 2-34. Which unit of the AN/SPN-46(V) provides a maintenance intercom for troubleshooting purposes?
1. Power distribution panel (unit 3)
  2. PRI-FLI indicators (unit 6)
  3. PRI-FLI indicator control (unit 5)
  4. Recorder-converter (unit 8)
- 2-35. Which of the following units of the AN/SPN-46(V) is NOT designed to test the system or to aid in troubleshooting?
1. Retractable alignment mast (unit 23)
  2. MLV (unit 13)
  3. SBBM (unit 15)
  4. OCC (unit 2)
- 2-36. Of the following radars, which would be used at a naval air station to replace the PAR portion of the AN/CPN-4 family of equipment?
1. AN/SPN-46(V)1
  2. AN/FPN-63(V)
  3. AN/MPN-23(V)
  4. Both 2 or 3 above
- 2-37. Which of the following items are generated by the AZ-EL range indicator of the AN/FPN-63(V)?
1. Cursors
  2. Range marks
  3. Internal map
  4. All of the above
- 2-38. Which of the following radar repeaters, if any, has range-only capability?
1. Planned position indicator
  2. A scope
  3. RHI
  4. None of the above

- 2-39. Which of the following inputs is/are required for a radar repeater to be able to display a detected target at the correct range and bearing?
1. Video
  2. Trigger
  3. Antenna position
  4. All of the above
- 2-40. A printed-circuit board in the CV-3989/SP Signal Data Converter is faulty. The replacement value of the PCB is \$627.00. Who, if anyone, will repair the PCB?
1. The ET responsible for maintenance of surface search radars
  2. Intermediate level maintenance personnel
  3. Depot level maintenance personnel
  4. No one, it should be discarded
- 2-41. The electronic bearing circle displayed around the AN/SPA-25G has bearing markers labeled numerically at what points?
1. Every 5°
  2. Every 10°
  3. Every 15°
  4. Every 25°
- 2-42. The AN/SPA-25G will interface with which of the following systems?
1. Any Navy missile guidance system
  2. Any Navy air search radar system
  3. Any Navy surface search radar system
  4. Both 2 and 3 above
- 2-43. The CV-3989/SP provides a RADDS data stream containing which of the following data?
1. Ship's heading
  2. Stabilized radar antenna azimuth
  3. Dead-reckoning information
  4. All of the above
- 2-44. The SB/4229/SP Switchboard can accept many signal inputs. Which of the following statements is most correct about its input capabilities?
1. It can accept signals from 16 radar sets
  2. It can accept signals from 16 radar sets and four IFF interrogator sets
  3. It can accept signals from six radar sets and four IFF decoders
  4. It can accept signals from six radar repeaters and six IFF decoders
- 2-45. The SB-4229/SP can accept RADDS data stream inputs from how many separate signal data converters?
1. 16
  2. 9
  3. 5
  4. 4
- 2-46. A total of how many different operators can select input sensors from the SB-4229/SP for display at their indicator?
1. 5
  2. 6
  3. 9
  4. 16
- 2-47. Which of the following radar indicators is used to obtain altitude information?
1. Planned position indicator
  2. A scope
  3. RHI
  4. AN/SPA-25G
- 2-48. On an rhi, which of the following is an indication of a target?
1. A horizontal line at the bottom of the screen
  2. A vertical blip
  3. The zenith at the left side of the screen
  4. Vertical range marks

- 2-49. How do you determine the target height when using an rhi?
1. Adjust height line; then read from the range markers
  2. Look at the target; then read the scale on the screen
  3. Adjust height line; then read it from the altitude counters
  4. Read it directly from the altitude dials
- 2-50. You are on an NTDS-equipped ship. What function, if any, does the AN/SPA-25G perform?
1. Primary radar indicator
  2. Backup radar indicator
  3. Multipurpose console
  4. None
- 2-51. Which radar repeater is used primarily by maintenance personnel to evaluate the operation of a radar?
1. A scope
  2. PPI
  3. RHI
  4. Both 2 and 3 above
- 2-52. Which of the following radar display and distribution system configurations will be found on 90% of Navy ships?
1. AN/SPA-25G, CV-3989/SP, SB-4229/SP
  2. AN/SPA-50, CV-3989/SP, SB-4229/SP
  3. AN/SPA-66, CV-3989/SP, SB-1505
  4. AN/SPA-25G, CV-3989/SP, SB-440